



SPYWOLF

Security Audit Report



Completed on
July 31, 2023

@SPYWOLFNETWORK



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SPYWOLF.CO





OVERVIEW

This audit has been prepared for **HappyPepe** to review the main aspects of the project to help investors make make an informative decision during their research process.

You will find a a summarized review of the following key points:

- ✓ Contract's source code
- ✓ Owners' wallets
- ✓ Tokenomics
- ✓ Team transparency and goals
- ✓ Website's age, code, security and UX
- ✓ Whitepaper and roadmap
- ✓ Social media & online presence

“

The results of this audit are purely based on the team's evaluation and does not guarantee nor reflect the projects outcome and goal

- SPYWOLF Team -

”





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HAPPY PEPE



PROJECT DESCRIPTION

According to their website:

"Already missed the opportunity to moon with Pepe. Now Do not lose \$HOPE. Happy Pepe is a strong comeback THAT offers an investment opportunity for those who missed out on their luck with Pepes. But do not worry, there is always \$HOPE to fulfill your dreams."

Release Date: Launching in August, 2023

Category: Meme token



CONTRACT INFO

Token Name
HappyPepe

Symbol
Hope

Contract Address
0x7f56660dac8dC05880a6253C6879C72bA31C8e51

Network
Binance Smart Chain

Language
Solidity

Deployment Date
Jul 23, 2023

Verified?
Yes

Total Supply
1,000,000,000,000,000

Status
Not launched

TAXES

Buy Tax
2%

Sell Tax
2%

*Taxes cannot be changed



Our Contract Review Process

The contract review process pays special attention to the following:

- ✓ Testing the smart contracts against both common and uncommon vulnerabilities
- ✓ Assessing the codebase to ensure compliance with current best practices and industry standards.
- ✓ Ensuring contract logic meets the specifications and intentions of the client.
- ✓ Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders.
- ✓ Thorough line-by-line manual review of the entire codebase by industry experts.

Blockchain security tools used:

- OpenZeppelin
- Mythril
- Solidity Compiler
- Hardhat



TOKEN TRANSFERS STATS

Transfer Count	3
Uniq Senders	2
Uniq Receivers	2
Total Amount	13900000000000000 Hope
Median Transfer Amount	3900000000000000 Hope
Average Transfer Amount	4633333333333333.3 Hope
First transfer date	2023-07-23
Last transfer date	2023-07-31
Days token transferred	2

SMART CONTRACT STATS

Calls Count	3
External calls	3
Internal calls	0
Transactions count	3
Uniq Callers	1
Days contract called	1
Last transaction time	2023-07-31 17:18:49 UTC
Created	2023-07-31 17:04:39 UTC
Create TX	0x8327e7b18aea4a208c06196dad5e3bfebf92b3b879af187e6731a830a58712da
Creator	0x315bb49c68c39d340f62bdfdbea8de430df9c8ee



VULNERABILITY CHECK

Design Logic	Passed
Compiler warnings.	Passed
Private user data leaks	Passed
Timestamp dependence	Passed
Integer overflow and underflow	Passed
Race conditions and reentrancy. Cross-function race conditions	Passed
Possible delays in data delivery	Passed
Oracle calls	Passed
Front running	Passed
DoS with Revert	Passed
DoS with block gas limit	Passed
Methods execution permissions	Passed
Economy model	Passed
Impact of the exchange rate on the logic	Passed
Malicious Event log	Passed
Scoping and declarations	Passed
Uninitialized storage pointers	Passed
Arithmetic accuracy	Passed
Cross-function race conditions	Passed
Safe Zeppelin module	Passed
Fallback function security	Passed



THREAT LEVELS

When performing smart contract audits, our specialists look for known vulnerabilities as well as logical and access control issues within the code. The exploitation of these issues by malicious actors may cause serious financial damage to projects that failed to get an audit in time. We categorize these vulnerabilities by the following levels:

High Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

Medium Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

Low Risk

Issues on this level are minor details and warning that can remain unfixed.

Informational

Information level is to offer suggestions for improvement of efficacy or security for features with a risk free factor.



FOUND THREATS

Medium Risk

Owner can change contract's autoswap settings.

If providingLiquidity is true and tokenLiquidityThreshold is 0 and contract's token balances are 0, contract will halt on sell and selling will fail.

```
function updateLiquidityProvide(bool state) external onlyOwner {
    providingLiquidity = state;
}

function updateLiquidityTreshhold(uint256 new_amount) external onlyOwner {
    require(new_amount <= 5e14, "Swap threshold amount should be lower or equal to 50% of tokens");
    tokenLiquidityThreshold = new_amount * 10**decimals();
}

function _transfer(
    address sender,
    address recipient,
    uint256 amount
) internal override {
    .....
    if (providingLiquidity && sender != pair)
        Liquify(feeswap, currentTaxes);
    .....
}

function Liquify(uint256 feeswap, Taxes memory swapTaxes) private lockTheSwap {
    .....
    uint256 contractBalance = balanceOf(address(this));
    if (contractBalance >= tokenLiquidityThreshold) {
        if (tokenLiquidityThreshold > 1) {
            contractBalance = tokenLiquidityThreshold;
        }

        // Split the contract balance into halves
        uint256 denominator = feeswap * 2;
        uint256 tokensToAddLiquidityWith = (contractBalance * swapTaxes.liquidity) / denominator;
        uint256 toSwap = contractBalance - tokensToAddLiquidityWith;

        uint256 initialBalance = address(this).balance;

        swapTokensForETH(toSwap);
        .....
    }
}
```

- Recommendation:
 - Ensure that tokenLiquidityThreshold's value is always above 1 token and/or check is performed against contractBalance (if==0 return;) instead of feeswap variable in the Liquify() function.



Informational

Owner can exclude address from fees.

When address is excluded from fees, the user will receive the whole amount of the bought, sold and/or transferred tokens.

```
function updateExemptFee(address _address, bool state) external onlyOwner {
    exemptFee[_address] = state;
}

function bulkExemptFee(address[] memory accounts, bool state) external onlyOwner {
    for (uint256 i = 0; i < accounts.length; i++) {
        exemptFee[accounts[i]] = state;
    }
}
```

Owner can withdraw any tokens from the contract except the native \$Hope token.

When this function is present, in cases tokens sent into the contract by mistake or purposefully, contract's owner can retrieve them.

```
function rescueBNB(uint256 weiAmount) external onlyOwner {
    payable(owner()).transfer(weiAmount);
}

function rescueBEP20(address tokenAdd, uint256 amount) external onlyOwner {
    require(tokenAdd != address(this), "Owner can't claim contract's balance of its own tokens");
    IERC20(tokenAdd).transfer(owner(), amount);
}
```



RECOMMENDATIONS FOR

GOOD PRACTICES

1

Consider fundamental tradeoffs

2

Be attentive to blockchain properties

3

Ensure careful rollouts

4

Keep contracts simple

5

Stay up to date and track development

Happy Pepe

GOOD PRACTICES FOUND

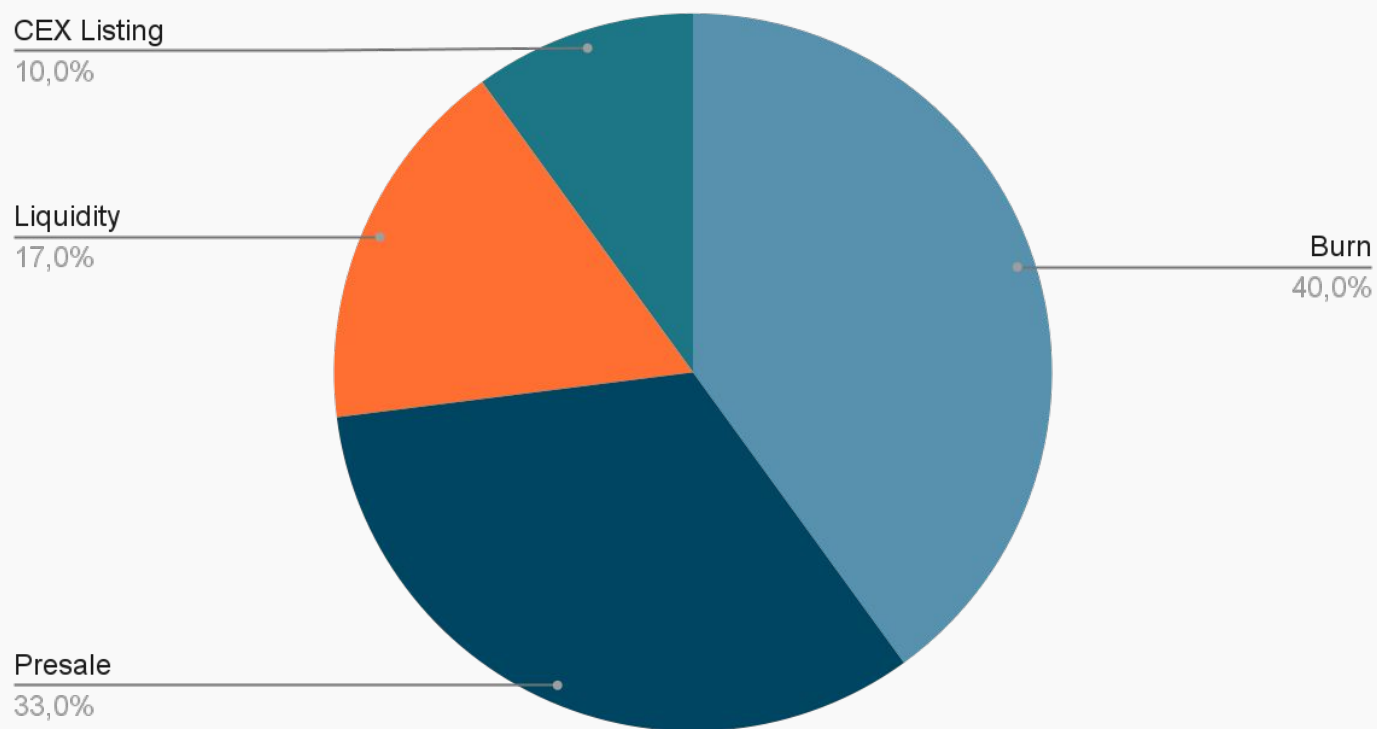
- ✓ The owner cannot mint new tokens after deployment
- ✓ The owner cannot stop or pause the contract
- ✓ The owner cannot set a transaction limit



The following tokenomics are based on the project's whitepaper and/or website:

- 40% - Burn
- 33% - Presale
- 17% - Liquidity
- 10% - CEX Listing

Tokens distribution



TOKENOMICS



THE TEAM

! The team is anonymous

KYC INFORMATION

No KYC

We recommend the team to get a KYC in order to ensure trust and transparency within the community.





Website URL

<https://happypepe.vip/>

Domain Registry

GoDaddy.com

Domain Expiration

2024-07-03

Technical SEO Test

Passed

Security Test

Passed. SSL certificate present

Design

Single page design with appropriate color scheme and graphics.

Content

The information helps new investors understand what the product does right away. No grammar mistakes found.

Whitepaper

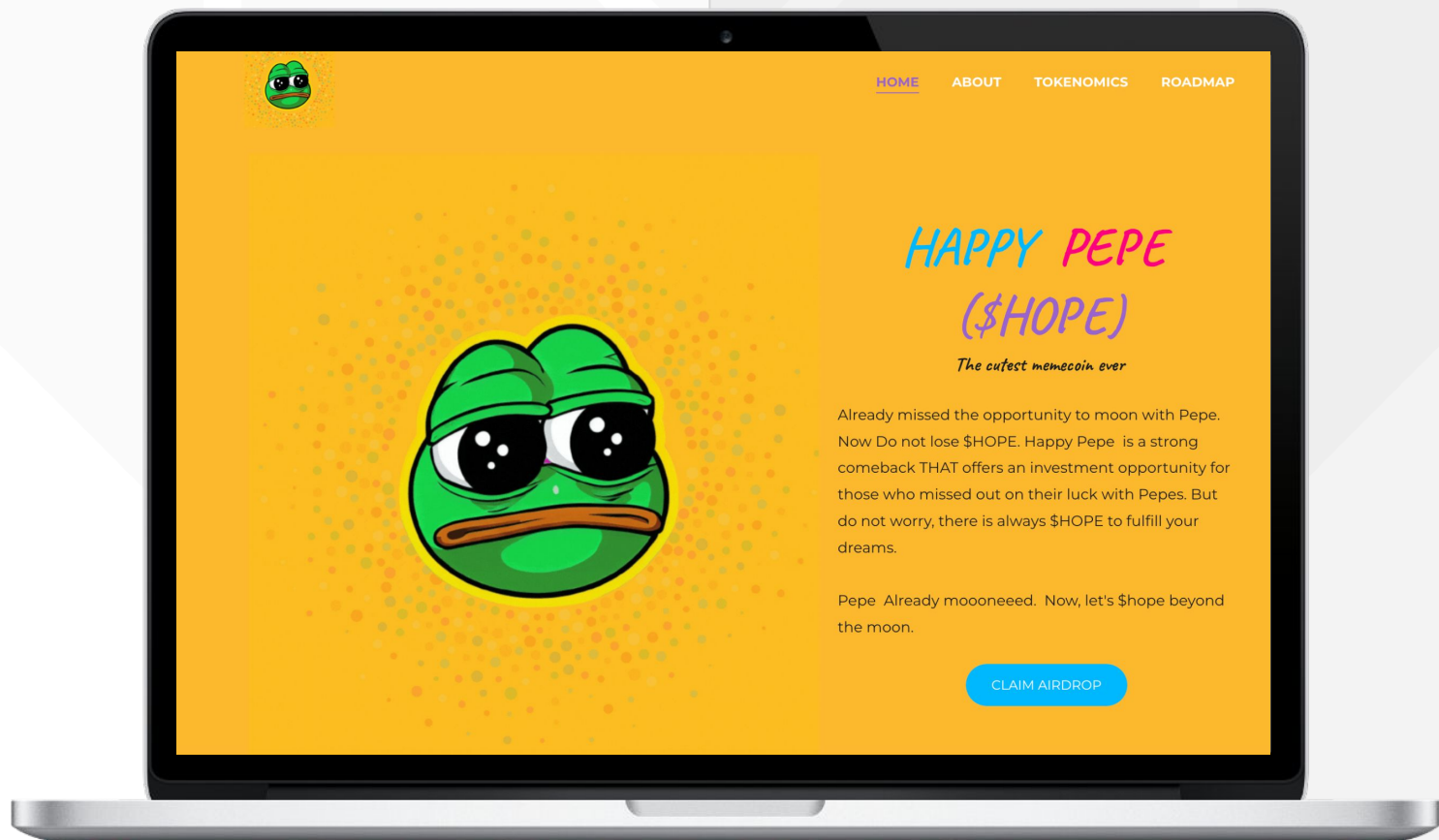
No

Roadmap

Yes, goals set without time frames.

Mobile-friendly?

Yes



happypepe.vip



SOCIAL MEDIA

& ONLINE PRESENCE



ANALYSIS

Project's social media pages are active



Twitter

@Pepe_Hope

- 717 followers
- Active members
- Active mods



Discord

- Not available



Telegram

@happypepe_official

- 742 members
- Active members
- Active mods



Medium

@hello_85604

- 1 post



SPYWOLF

CRYPTO SECURITY

Audits | KYCs | dApps
Contract Development

ABOUT US

We are a growing crypto security agency offering audits, KYCs and consulting services for some of the top names in the crypto industry.

- ✓ OVER 500 SUCCESSFUL CLIENTS
- ✓ MORE THAN 500 SCAMS EXPOSED
- ✓ MILLIONS SAVED IN POTENTIAL FRAUD
- ✓ PARTNERSHIPS WITH TOP LAUNCHPADS, INFLUENCERS AND CRYPTO PROJECTS
- ✓ CONSTANTLY BUILDING TOOLS TO HELP INVESTORS DO BETTER RESEARCH

To hire us, reach out to
contact@spywolf.co or
t.me/joe_SpyWolf

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Disclaimer

This report shows findings based on our limited project analysis, following good industry practice from the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, overall social media and website presence and team transparency details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report.

While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the disclaimer below – please make sure to read it in full.

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No applications were reviewed for security. No product code has been reviewed.